REMARKS

Claims 3-8 and 11-27 are pending in the application.

Claims 3, 11 and 17-23 are withdrawn from consideration.

Claims 4-8, 12-16 and 24-27 stand rejected.

Rejection of Claims under 35 U.S.C. § 103

Claims 4-8, 12-16, and 24-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappoport, U.S. Patent No. 6,828,963 (Rappoport). Applicants respectfully traverse this rejection because the differences between the claimed invention and Rappoport would not have been obvious at the time the invention was made to a person having ordinary skill in the art. None of the primary *Graham* factors suggest the obviousness of the claimed invention in light of Rappoport.

The scope of Rappoport's disclosure is limited to a one-time technique for matching patterns of design data in distinct computer aided design (CAD) systems. Both the source and target CAD systems serve the exact same function: computer aided design. Neither the source nor the target can manipulate the design data any differently; Rappoport is limited to the pattern matching, or translation itself.

In contrast, the claimed invention differs markedly; the claimed invention is directed to enterprise resource planning and in particular the improvement of product management metrics such as time-to-market, configuration accuracy, timely orders, valid orders and the like. In the claimed invention the source and target systems may have completely different functionalities: one of the systems may be configured for back-end manufacturing, while another of the systems may be configured for front-end sales.

Rappoport does not show, teach or suggest such a distinction between source and target systems; the source and target systems are both strictly for CAD design. Given that Rappoport discloses only a unidirectional, one-time translation between CAD systems, broadening the scope of Rappoport's disclosure to include distinctly functional systems is not reasonably suggested or taught by Rappoport. Since Rappoport is concerned only with the translation between CAD systems, it is mandatory that for Rappoport's system to operate properly, the source and target systems be CAD systems that are functionality comparable to one another.

The claimed invention comprehends the improvement of product management metrics by enabling communication between disparate systems by means of a novel, hierarchical data structure. Furthermore, the communication thus enabled, unlike Rappoport, is bidirectional and, as described in paragraph 0024 of the present specification, is capable of operating over a variety of different network types, including wired, public switched telephone networks, and packet-based networks. Given that Rappoport is only concerned with translation, there is no discussion therein regarding the system operating over multiple network types, nor a manner in which this might be accomplished. Lacking such a consideration, it can not be said that Rappoport teaches or suggests the possible variable network solution provided by the claimed invention.

In Rappoport, both the source and target systems are CAD systems, and so, systems with comparable functionality. Therefore, translating design data between them does not in any way improve or even allow for the tracking of product management metrics. The only substantive difference between the design data between the two CAD systems is thus form, as the design data is to be used, and should appear, in exactly the same way in both systems: a CAD design.

In contrast, in the claimed system, the very substance of the product management data being manipulated depends on the type of source and target systems. For example, the product

management data will be used differently when the system in question is a back-office manufacturing system or a front-office sales system. In the claimed invention, when the target and source systems have different functionality, the data will typically appear and be used in very different ways. Without the ability to provide for different functionality at different points, when dealing with such a variety of systems, and without the ability to provide any way to improve or even keep track of product management metrics, Rappoport's method can not be said to "manage" a product.

The office action of 04/02/2007 in the fourth bullet of page 3, states that Rappoport's system performs "at least one computer-implemented act from a set of computer-implemented acts comprising: creating a new product record in the target computerized product management system; updating an existing product management record in the target computerized product management system."

First, Applicant does not agree that Rappoport's system is a product management system for reasons outlined earlier herein. As for the creation of a new product record, Rappoport's disclosure does not in any way bestow upon a CAD system the ability to create a product record. Creation of a new design is inherent in a CAD system, this ability to create a new design is not provided by Rappoport's invention. While the translated design data may result in a new record on the target CAD system, Rappoport does not in any way enhance the abilities of existing CAD systems instead, simply teaching a technique for translating design data between them. A similar argument applies to the second assertion that Rappoport's system allows for "updating" a system.

The office action attempts to reinforce this last point in the last paragraph of page 4 by stating that "Rappoport teaches using CAD systems for handling enterprise resource planning

data (see at least column 1, lines 43-52), which is equated in product management in the present system."

Applicants respectfully disagree. While Rappoport discusses CAD systems sometimes being integrated into product data management systems or enterprise resource planning, this is no more than a general discussion regarding the use of CAD systems. Since the only place where such systems are discussed is in Rappoport's introduction, Applicants respectfully submit that such discussion obviously have nothing to do with Rappoport's system, and so are no more relevant than simply stating that product management systems exist. Thus, Applicant stridently disputes that Rappoport teaches anything regarding enterprise resource planning or product management metrics, particularly as to providing such disclosure in an enabling manner.

In the claimed invention, translation is merely a step toward the larger goal of improving product management metrics within an enterprise resource planning system. These goals are met by allowing bidirectional communications (e.g., translations) between disparate product management systems. For Rappoport, unidirectional translation is the entire goal and scope of the disclosure. Given the limits of Rappoport's disclosure, even a person having ordinary skill in the art would not have found the claimed invention obvious. The goals and functionalities of the claimed invention and Rappoport's systems simply are simply too unrelated.

Ascertaining Differences Between the Cited Reference and the Claims

The differences, even when considered individually, between Rappoport and the claimed system can not be bridged by a person having ordinary skill in the art. Such differences include the distinct functionality of intermediate data and the distinct functional relationship between

each system's components. The differences between the claimed invention and Rappoport's disclosure have been discussed in the previous section.

The claimed product information in a second intermediate form differs markedly from Rappoport's intermediate data structure. The office action of 04/02/2007 on page 4 concedes that, "Rappoport does not specifically disclose that the data being stored and converted in the method is product management information."

As argued in the prior section with regard to the claimed invention and Rappoport's disclosure, that Rappoport does not disclose such features comes as no surprise given that Rappoport's disclosure is not directed to a product management information system or any form of product management. In Rappoport, the intermediate data is a simple list of transformations that will recreate the design data on the target system, hopefully as it existed on the source system (or as nearly thereto as possible). There is no requirement at all for a data structure more complex than a list to represent the intermediate form of the design data. In fact, Rappoport does not discuss the data structure of the intermediate form of the design data at all beyond describing a list of transformations -- a list is entirely sufficient.

Given this lack of attention to the intermediate form and without any need for anything but a simple list of transformations, such disclosure would not suggest or teach a person having ordinary skill in the art to replace Rappoport's list with a more complex data structure. Furthermore, anything like Rappoport's list of design data transformations would be entirely insufficient to perform the functionality provided by the claimed hierarchical product management data structure. This is because the data being transformed is transformed completely by the claimed invention, as any loss or change in the data would lead to errors in product management decisions. Moreover, given the markedly different data being translated

(CAD data versus product management information), the task of translation is not only different, but the needs and objectives are vastly different, as well.

Therefore, even if a parallel between Rappoport's disclosure and the claimed invention in the use of intermediate data could be drawn (as posited in the office action of 04/02/2007 in the first bullet of page 3), which Applicant does not concede, such intermediate data would be functionally different. The claimed hierarchical data structure and the functions enabled by such are inherently distinct from the data structures and functionalities of Rappoport.

The office action of 04/02/2007 in the third bullet of page 3, attempts to correlate Rappoport's rollback log with the claimed hierarchical product management data structure. Such an argument is inapposite. Rappoport's rollback is performed in the case of a translation failure – such failures are not considered a part of a successful translation in the claimed invention. This is evidenced by the lack of any teaching with regard to the claimed invention as to any "re-try" of a translation or portion thereof. The claimed data structure's structure is another feature aimed at avoiding such failures.

In this regard, Rappoport provides no additional information regarding the structure of the rollback log or any other manner of enablement. A log is commonly understood to be a simple list of changes or transactions. As described in Rappoport, a log does not employ nor convey a hierarchical data structure. Given this lack of attention to the form of the rollback log data and without any need for anything but a simple list in the system of Rappoport, a person having ordinary skill in the art would find no teaching or suggestion to replace Rappoport's rollback log with a more complex data structure. There would simply be no need or motivation to replace the perfectly acceptable solution of a list in Rappoport's system with a hierarchical data structure, an unnecessarily complex solution to Rappoport's needs. Thus, Applicants

respectfully submit that the attempted correlation between Rappoport's intermediate form of a simple list and the hierarchical data structure in the claimed invention can not be supported.

The office action of 04/02/2007 on page 4, paragraph 2, states that the difference of the intermediate form is not distinguishing because the claimed intermediate product management information is merely nonfunctional descriptive material. Applicant respectfully disagrees. The claimed method is not, "merely labeling the data in a specific manner." Instead, the structure of and information that makeup the claimed product management information allow the conversion of the claimed product management data into the claimed product common object, which is a hierarchical data structure. Thus, the product management information's characteristics are precisely what enable the communication of data from one type of product management system to another (e.g., a sales information system, an ERP system, a DSS system and so on). Under *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994), data structures "contain both information used by application programs and information regarding their physical interrelationships within a memory. Lowry's claims dictate how application programs manage information. Thus, Lowry's claims define functional characteristics of the memory."

The claimed data structure dictates the management of information and contains information regarding the requisite interrelationships regarding the product management information needed by the different systems. The management of information within the claimed system is thus supported by the definition of the hierarchical data structure. That is, if the communication is not supported by the data structure, communication between the system end points is adversely affected. Also, as will be apparent in light of the present application's disclosure, the data structure takes into consideration the relationships between system end points. That is, the data structure's features and characteristics are, at least, in part determined by

the various functionalities expected of the end points in the claimed system. For example, given that front-end sales product management data will need to be communicated, variables and structures capable of containing this information and corresponding relationships are provided (e.g., as reflected by the limitations of claim 5). A similar argument applies for back-end systems. Thus, as in *In re Lowry*, the claimed data structure is a functional, meaningful limitation, and so must be considered when determining the scope of the pending claims.

Another fundamental difference between the systems of Rappoport and the claimed invention is the functional relationship between each system's components. Rappoport's system is intended to be a one-time, unidirectional process, whereas the claimed system is capable of, and is typically employed in, a bidirectional manner (even multidirectional in some applications). Rappoport goes so far as to concede that the disclosed system will not always result in a perfect exchange of design data from one CAD system to another CAD system. Column 5, 43-45 states that the exchanged data will not always allow for manipulation of the design as if it were on the original system. The possible result of a less functional translation implies that Rappoport's system can only reasonably be expected to be functional if generated in one direction. This is to be expected – the situations to which Rappoport is applicable are those in which a new CAD system is replacing an old CAD system. Once replaced, the old CAD system and its data are not expected to be used again, and so there is no need to perform a translation from the new CAD system back to the old CAD system.

Further illustrating that Rappoport's system is intended to be unidirectional are claims 6, 10, 13, 19, and 20. Each claim recites limitations directed to the case in which a translation can not be made. Specifically, each method claimed thereby will simply "reject" a result when the translation is outside a threshold or tolerance value. Once successfully converted (even with

errors), no provision is made for converting the newly-converted data (or any other data in this new format) back into its old form.

The claimed invention by contrast does not address the issue of untranslatable data, because the claimed invention is inherently designed to enable the communication and translation between among the various types of systems supported, and so to be at least bidirectional. Also, Rappoport gives examples of the types of problems his system is intended to solve and they are all unidirectional solutions. In column 30, 11-30, Rappoport details the problems when two companies merge where each company previously had different and incompatible CAD systems. With regard to Rappoport's system, the design data can be transformed to data useable by a single type of CAD system, thereby allowing for the use of the original one CAD system to be discontinued. Since the use of both CAD systems by the "merged companies" would be unnecessarily duplicative, there is no reason to continue using both. In fact, when software licensing and maintenance for two systems is considered, there is a strong incentive to employ only one system. This fact, coupled with the possibility that the exchanged design data will be less robust (and potentially less accurate in its representation), keeping both CAD systems and continually translating between the two would be counterproductive. Even if such an arrangement were considered, Rappoport's inability to provide accurate, true and complete translations would, after many translations, inevitably lead to a gross divergence from the original CAD data. Therefore, Rappoport's system can only be considered to disclose a unidirectional technique, and so can not be fairly interpreted to teach or suggest anything but a unidirectional system

By contrast, the claimed invention is inherently at least bidirectional. As noted in the application description paragraph 0013, "All changes in the product management information

need to be captured and made accessible to all relevant computer applications in the product management system." The claimed invention envisions changes which can be made from any point in the system – with the claimed invention, the product management information can travel to and from any one of a number of points in the system to any one (or more) other points in the system. This is noted in paragraph 0018, "As previously explained, the flow of product management information may be bi-directional. In other words, product management information can be initiated from either the front-office product management system or from the back-office product management system." Further support for the claimed system being at least bidirectional is in paragraph 0019, reproduced below for the Examiner's convenience.

> [0019] When product management information is passed from the back-office product management system to the front-office product management system, then the back-office product management system is referred to as the source system and the front-office product management system is referred to as the target system. On the other hand, when the product management information is passed from the front-office product management system to the back-office product management system, then the front-office product management system is referred to as the source system and the back-office product management system is referred to as the target system.

This paragraph, in describing how any point in the system can be a source or target, depending on the flow of product management information illustrates the multidirectional ability of the claimed invention.

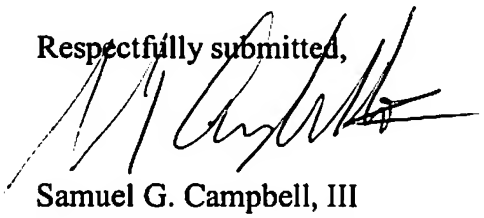
Given the distinctions in functional relationships between the elements of Rappoport and the claimed invention, Applicants respectfully assert that Rappoport does not teach or suggest to a person having ordinary skill in the art to arrive at the claimed product management system.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,



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